

Four-Step Transport Planning Model

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Four-Step Model

The four-step model is a classical approach in transport planning. It is used to estimate trip generation, trip distribution, mode choice and traffic assignment on the transport network.



Traffic Analysis Zones

- The study area is divided into traffic analysis zones that represent trip origins and destinations. Zones are defined according to land use, population, employment, administrative boundaries and network characteristics.



1. Trip Generation

Trip generation estimates how many trips start in a zone and how many trips end there. The analysis is based on socioeconomic indicators and land use characteristics.



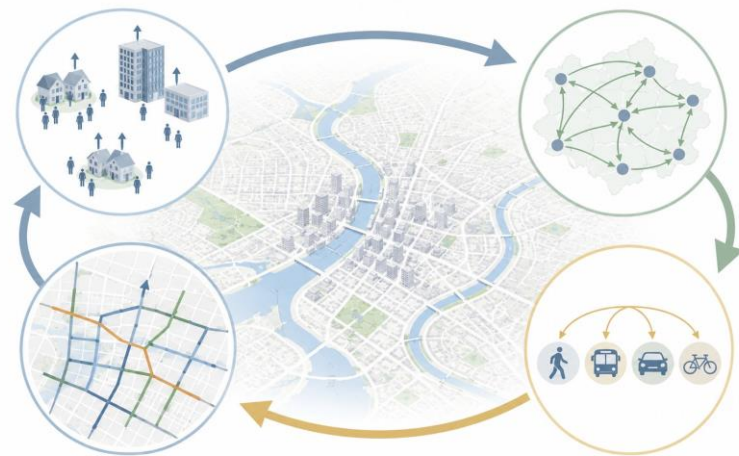
2. Trip Distribution

Trip distribution determines connections between zones, or how many trips are made between each pair of zones. Distance, travel time, costs and destination attractiveness influence the result.



3. Mode Choice

Mode choice shows whether users travel by car, public transport, bicycle, walking or a combination of several modes. The decision depends on time, cost, accessibility and service quality.



4. Network Assignment

Network assignment shows how trips are distributed across specific roads and public transport lines. This step supports the assessment of congestion, capacity and critical sections in the network.



Planning Scenarios

The model enables comparison of different scenarios, such as building a new road, introducing tram services, improving bus routes, restricting parking or developing a cycling network.



Importance of the Model

The four-step model helps planners assess the consequences of decisions before implementation. It connects spatial development, user behaviour and transport network performance.



THANK YOU FOR YOUR ATTENTION!